

REMARKS:

Geological Formations:

Surface - Mancos

Bottom - Padox

WELL RECORD CHART
 (No file) Bul. 50

DATE FILED **Prior OGCC**

LAND: FEE & PATENTED STATE LEASE NO.

PUBLIC LEASE NO. **X**

INDIAN

DRILLING APPROVED: **Prior OGCC**

SPUDDED IN:

COMPLETED:

INITIAL PRODUCTION:

GRAVITY A. P. I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH: **5,013**WELL ELEVATION: **4766**DATE ABANDONED: **10-26-43** P & AFIELD OR DISTRICT: **Grescent** *3/86 Wildcat*COUNTY: **Grand**WELL NO. **Potash Co. of America #1**

LOCATION: FT. FROM (N) (S) LINE,

FT. FROM (E) (W) LINE. **NWNW**QUARTER - QUARTER SEC. **10**

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
<i>43</i> 22 S	19 E	10	POTASH CO. OF AMERICA				

ADI NO. **43-019-11571**

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COPY

Log of testing operations

POTASH COMPANY OF AMERICA - WOODS NO. 1 WELL

Location: SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$, Sec. 10, T. 22 S., R. 19 E.
990' from the N., 990' from the W line of
Sec. 10, Crescent Area, Grand Co., Utah.
Elevation: 4772' (Rotary table), 4766 (Ground)

FORMATIONS PENETRATED:

<u>FORMATION:</u>	<u>FROM:</u>	<u>TO:</u>	<u>THICKNESS:</u>
1. Mancos shale	6' - 1610'		1604'
(a) Sandy member of Mancos	880' - 910'		30'
(b) Ferron member of Mancos	1560' - 1610'		50'
2. Kayenta sandstone	1610' - 1618'		8'
3. Wingate sandstone	1618' - 2020'		402'
4. Chinle sandstone and shale	2020' - 2200'		180'
5. Hermosa limestone, Ss., & Sh	2200' - 2833'		633'
6. Paradox salt section	2833' - 5013'		2180'
Total Depth - 5013'			

FORMATIONS CORED:

<u>Formation:</u>	<u>From:</u>	<u>To:</u>	<u>Thickness:</u>
1. Hermosa (taken to obtain dip)	2515' - 2519'		4'
2. Paradox salt section	2842' - 5013'		2171'

SHOWS OF OIL AND/OR GAS:

<u>Formation:</u>	<u>Depth:</u>	<u>Nature of show:</u>
1. Paradox salt	3229'	Discharge of gas blew a small amount of drilling fluid from the hole.

TESTS FOR OIL AND/OR GAS:

1. SCHLUMBERGER ELECTRICAL WELL-SURVEY:

Date: Sept. 14, 1943
Depths tested: 0' - 2814'
Formations tested: Mancos, Kayenta, Wingate, Chinle and Hermosa.

(Continued)

Potash Company of America - Woods No. 1 - Testing operations

Results of test:

No show of oil and gas are indicated. The tops of formations and changes in lithology are indicated by changes in the self-potential and resistivity curves on the electrical log, which can be correlated with the geologic log made from drill cuttings. The Mancos formation, including the Sandy and Ferron members, is characterized by low porosity. The Ferron member shows moderately high resistivity due to limestone strata. The Kayenta and Wingate sandstones show higher porosity and low resistivity, indicating that they carry water of a probable brackish nature. The increased shale content of the lower part of the Wingate is indicated by lower porosity and higher resistivity. The Chinle formation is characterized by low porosity and high resistivity due to the greater abundance of shale. The electrical log shows the Hermosa formation to have low porosity throughout, and local areas of high resistivity where the hole penetrates beds of limestone and anhydrite.

2. SWABBING TEST (to test gas show at 3229'):

Date: Oct. 29 to Dec. 2, 1943

Depths tested: 2844' - 5013'

Formation tested: Paradox salt section

Nature of test:

6-5/8 casing was set at 2844' and cemented with 60 sacks of special oil well cement by Halliburton Oil Well Cementing Co. After cement had set for 72 hours, casing was bailed dry and found not to be leaking. Cement and plug was drilled out of casing shoe. Fluid entered the casing and rose to 477' from surface. Circulation test showed that cement was not holding. Recemented casing with 100 sacks cement by Halliburton Oil Well Cementing Co. Allowed cement to set 72 hours, and then drilled out plug.

Ran tubing to 4409'. The hole was voided to about 1500' by swabbing, when swab was pulled into the crown block and destroyed. With a new swab the fluid was lowered to approximately 1900'. The tubing then bridged, and had to be pulled out and cleaned.

(Continued)

Potash Company of America - Woods No. 1 - Testing operation

Tubing was rerun to 3530', and the hole voided to about 2000', when a slight show of gas was observed. The gas was not of sufficient amount or pressure to measure on instruments in tests made by Mr. W. H. Strang, U. S. G. S., and Mr. T. J. Futch.

By continued swabbing the fluid was lowered to 3328', and the hole shut in for 30 hours to observe Thanksgiving. When swabbing was resumed, some gas pressure was observed between the casing and the tubing, but none within the tubing. Gas pressure was not strong enough to show on a U. S. G. S. gage. After swabbing below 3100', it was decided to lower the tubing, and further void the hole. The tubing was lowered to 4744' and the fluid swabbed to 4268'. In the course of swabbing, the fluid thickened with a black shaly mass containing some anhydrite particles giving evidence that the walls of the hole were caving and sluffing. Although the hole was progressively deteriorating, swabbing was continued. The swab eventually stuck at 3868', and when it was worked loose, particles of anhydrite were found to have caused the swab to stick.

While the fluid was swabbed and held below 4268', covering a period of about 48 hours, only a slight gas show of unmeasurable quantity was observed. Further attempts to lower the fluid level resulted in fouling of the swab in shale cavings, which had been forced into the tubing. Because of the progressive deterioration of the hole by caving, and because a thorough examination of the cores by Mr. K. A. Gorton, geologist, failed to show evidence of oil or gas below 4268', it was deemed inadvisable to attempt further voiding of the hole.

Results of test:

The gas in the Paradox formation was shown to occur in extremely small volume. With the hole voided 100' below the gas show at 3229', and shut in for 30 hours, the gas pressure was not strong enough to register on a U. S. G. S. gage. With the fluid swabbed and held below 4268' over a period of 48 hours, the gas again was not of sufficient volume or pressure to measure.

(Continued)

Potash Company of America - Woods No. 1 Testing operations

3. SWABBING AND BAILING TEST:

Date: December 12, 1943

Depths tested: 91' - 1984'

Formations tested: Mancos (including Sandy and Ferron members), Kayenta, and Wingate.

Nature of test:

After plugging the lower part of the hole by filling with cement from the total depth to 2680', the 6-5/8" casing was cut off at 1984' with Mc Cullough cutting tool. 448' of 6-5/8" casing was pulled, and an attempt was made to lower the fluid level by bailing and swabbing to test the above formations for oil and gas, although no shows had ever been observed above the top of the Paradox. The hole was bailed with a large bailer, which caused a swabbing action on the casing, and pulled a vacuum. Water entered the hole, and after 12 hours of continuous bailing, the fluid level could not be lowered below 800'. The water contained no show of oil or gas.

Results of test:

The Mancos, Kayenta, and Wingate formations in the Wright No. 1 well contain no free oil or gas. Some of these formations, most likely the Kayenta and Wingate sandstones, are water bearing.

CASING SET:

1. 13" O.D., 50 lbs., 10 thread Surface Casing set at 91', cemented with 60 sacks of cement by Halliburton Oil Well Cementing Co.
2. 6-5/8" O.D., 26 lbs., 10 thread, screw casing set at 2844', cemented with 60 sacks of cement and recemented with 100 sacks by Halliburton Oil Well Cementing Co.

CASING RECOVERED: 1984' of 6-5/8" casing.

(Continued)

Potash Company of America - Woods No. 1 Testing operations

PLUGGING RECORD:

Date: Dec. 8 to Dec. 13 inclusive, 1943.

The hole was plugged with 902 sacks of cement from the total depth to 2680', introduced through tubing by Halliburton Oil Well Cementing Co. in batches as follows:

230 sacks of cement from total depth to 4495'

225 sacks of cement from 4495' to 3818'

275 sacks of cement from 3818' to 2936'

172 sacks of cement from 2936' to 2680'

This placed the cement within the 6-5/8" casing to a point of 164' above the shoe at 2844', and 153' above the top of the salt.

The 6-5/8" casing was cut off at 1948' with McCullough cutting tool, and after the formations above this depth were tested for oil and gas by bailing and swabbing through casing, the hole was filled with 11 lb. mud as the casing was pulled.

Surface casing was bridged 5' to 10' from the ground level, and filled with cement to the surface. 4" pipe was imbedded in cement to mark position of hole.

43-019-20397 Defense Plant Corp #1 (4-225-19E)

computer currently shows 360 FNL 1550 FWL (which is NENW!)
file shows 360 N 1550 W SE Cor. C SW SE (Hotline Report)
(which means 360 FSL 1550 FEL)

change computer, cardex, etc. to 360 FSL 1550 FEL

Input by Dierdre Cox

43-019-11571 Potash Co. of America #1 (10-225-19E)

computer currently shows No footages - NWNW QQ
file shows 990 FNL 990 FWL SESWSW (N FSL?)

These footages are not in SESWSW, but no other
data is available, so I'm not sure what
to do with this one!

input by James Hargrove

*921203 footages above added to sys. "Cardex also had NWNW".
No other info available for

43-019-11496 Utah Oil Refining Co. #1 (10-225-19E)

computer currently shows 1155 FSL 319 FEL (which is SESE!)
file shows 1155 S of W 1/4 cor. 319 E of W line NWSW
(1924 Sundry Notice)
(which means 1485 FSL 319 FWL)

change computer, cardex, etc. to 1485 FSL 319 FWL

Input by James Hargrove